



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,070	10/12/2004	Steven Victor Jones		8765

7590 04/30/2007
The Black & Decker Corporation
Mail Stop TW199
Towson, MD 21286

EXAMINER

MITCHELL, KATHERINE W

ART UNIT	PAPER NUMBER
----------	--------------

3677

MAIL DATE	DELIVERY MODE
-----------	---------------

04/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/511,070

Applicant(s)

JONES, STEVEN VICTOR

Examiner

Katherine W. Mitchell

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10.12-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10.12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/23/2007.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

The Request for Continuing Examination (RCE) under 37 CFR 1.114 filed on 2/23/2007 is acceptable. An RCE has been established. Any newly-submitted claims have been added. Any previous finality is hereby withdrawn and a new action on the merits follows.

Drawings

1. The amended drawings are approved and entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said head" in line 9. There is insufficient antecedent basis for this limitation in the claim, since both a tubular body head and a mandrel head have been recited earlier in the claim.

Claims 2-10 are rejected as depending from claim 1.

Claim Rejections - 35 USC § 103

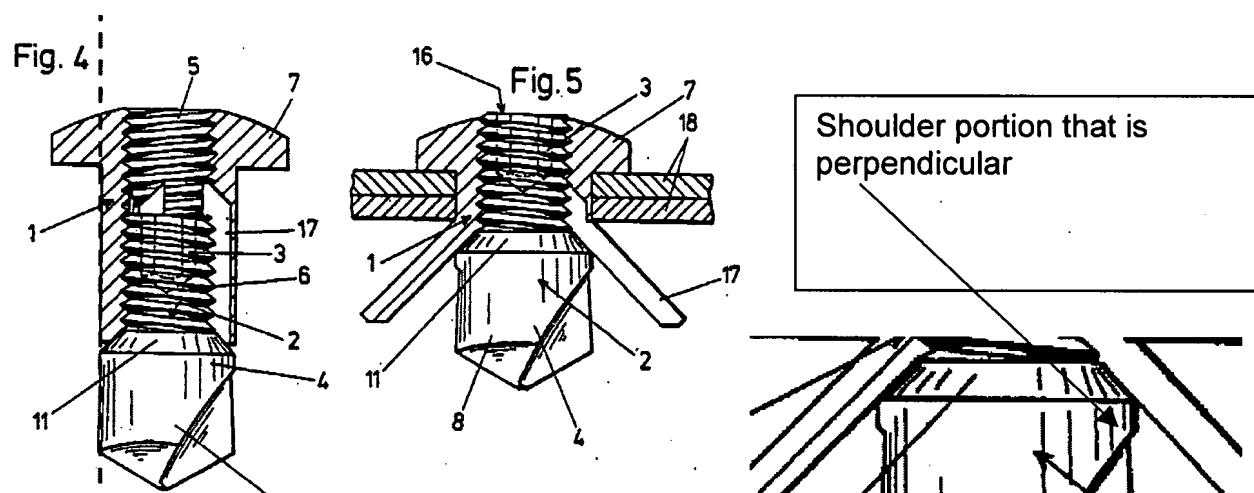
5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-10, 12-20 are rejected under 35 U.S.C. 102(b) as anticipated by Palm, USP 5183357.

RE claims 1,12 and 19: Palm teaches a peel type blind rivet with an elongate tubular body 1 having a shank (Fig 1 and 4) and preformed head 7 and expandable portion (end including 12 and 17) at end opposite head. The expandable portion comprises a bore which is a constant inner diameter (Figures copied below), and an external surface with a constant outer diameter and the body defines a plurality of slots 12 (Column 5 lines 27-61) which terminate remote from said first end. The mandrel has a stem extending co-axial through said tubular body, with a mandrel head unit 4 with maximum external diameter larger than the body internal diameter, and the mandrel head has a shoulder portion in contact with the opposed end defining a bearing surface (Fig 4) which is ***substantially*** perpendicular to the stem.

Art Unit: 3677



Further regarding claim 12 and 19: The detail above shows a perpendicular shoulder portion - it is inherently in contact with the opposed end when the mandrel is 1st pulled thru the opposite end.

Re claim 2,13: Figs 1 and 4 show the opposed end of shank with a flat surface perpendicular to shank axis.

Re claims 3-6, 14-17: The slots are shown as described in Figs 12-15, noting that column 5 lines 27-61 states the grooves 17 can be through slots.

Re claims 7-8,18 and Further Re claim 19: The wall thickness and external diameter are both constant along the axial length.

Re claim 9: The embodiment of Figs 1-3 shows a breakneck or reduced diameter portion, 10. Note that in Fig 4, the shoulder is the slightly enlarged area as shown in the detail above, and in this case, the reduced diameter portion is portion 11.

Re claim 10: The max diameter of the mandrel head is equal to the external diameter of shank, see examiner's dotted line in Fig 4 above and Fig 1 below..

Art Unit: 3677

Re claim 20: The mandrel breakneck 10 defines three angled surfaces (relative to axis -- the 180 degree angle of breakneck 10 itself, and 2 angled portions of threads above and below portion 10.

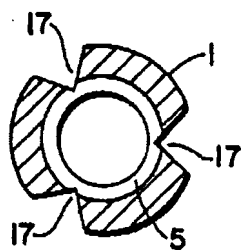


FIG. 12

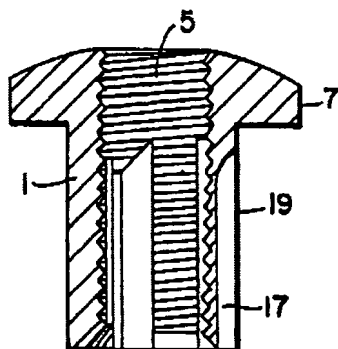


FIG. 13

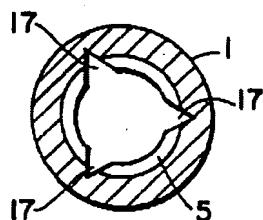


FIG. 14

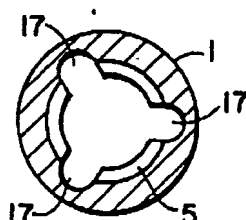


FIG. 15

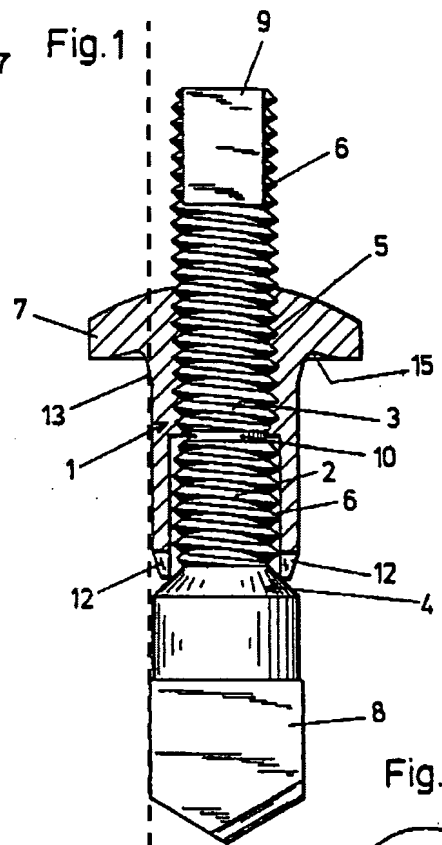


Fig.

Palm shows slots 12/17 extending in a width from an outer surface to an inner surface of said tubular body in Fig 12 and col 5 lines 26-61, and further teaches in Palm col 5 that the sidewalls can be curved:

lines (17) can be selected differently. It is therefore possible to form the notches or grooves in a triangular, 40 polygonal, trapezoidal, or circular cross section.

Trapezoidal-shaped grooves are shown in FIG. 9. trian-

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Smith and Palm before him at the time the invention was made, to modify Smith as taught by Palm to

Art Unit: 3677

include slots of specific geometries, in order to obtain an easier to peel rivet with smooth and more-flush 'collar' formed by the peeled-back sections, and optimum locking, as taught by Palm in col 3 and col 5 lines 35-61.

Response to Arguments

7. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

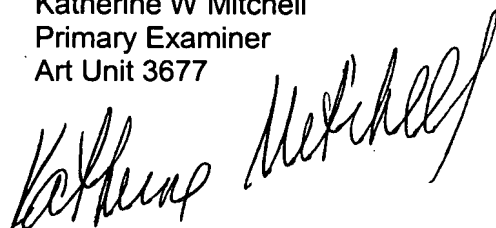
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Katherine W Mitchell
Primary Examiner
Art Unit 3677



4/18/2007